

erator memory **148** or any other suitable associated memory. Wheel sound generator can retrieve various wheel sound files or portions of wheel sound files from associated memory **148**, and then distribute or facilitate the distribution of wheel sounds to one or more speakers, such as dedicated wheel speakers **149a**, **149b**, **149c**.

**[0078]** In various embodiments, the stored recordings of actual physical wheels can include multiple and/or lengthy sound recordings, such that snippets or portions of a given sound recording file can be selected randomly for any specific sound playback and emulation. For example, the general sounds of an actual physical wheel spin, accompanying stepper motor whine and other associated mechanical sounds can be recorded for ten seconds, twenty seconds, or more, and such a recording can then be stored on one or more files and sampled from randomly whenever accompanying sound for a spinning gaming wheel is to be provided, such as for the few seconds that such a virtual wheel actually spins during game play.

**[0079]** In various embodiments, wheel sound generator **147** can also be used to modify the sounds that are recorded in the various sound files, so as to provide even more realistic emulations of the sounds of physical wheels. Such sound processing can include generally randomizing the various tones, length, pitch or content of sounds from one simulated wheel spin to the next. For such purposes, wheel sound generator **147** may include a digital sound processor adapted for the dynamic presentation and/or modification of sounds from recorded sound files.

**[0080]** In some embodiments where one or more speakers are adapted to provide stereo sound, for example, with respect to accurate sound emulations of spinning wheels, such stereo speakers may also be used for other dynamic presentations on the gaming machine. Since gaming machine **100** is a processor-based gaming machine, it will be readily appreciated that a wide variety of displays and special effects can be provided. Various displays can involve animated wheel symbols or stops, figures or other objects, which items may move across the display **126**. In embodiments that include a multi-layer display, such animated wheel symbols or other objects can also be adapted to move back and forth depthwise between the various screens of the multi-layer display. In the event that stereophonic sounds are provided on multiple speakers, such speakers can be used to provide sounds that are in sync with the motions of such animated wheel symbols or other objects. For example, an animation that involves a wheel symbol or object moving from left to right across screen **126** might be accompanied by sounds that move from wheel speaker **149a** to wheel speaker **149b** to wheel speaker **149c** as the object moves across the screen. Again, while dedicated wheel speakers **149a**, **149b**, **149c** may be used to present stereo sounds and/or sounds with respect to the various gaming wheels **191**, other general speakers **132** may also be used for such purposes.

**[0081]** It will be readily appreciated that the various disclosures herein with respect to processor-based gaming machines, virtual and other gaming wheels and methods involving the more realistic emulation of physical wheels can also be applied to wager-based gaming systems having networked gaming machines and other network components. Such systems can include components and configurations such as those described above with respect to FIG. **2**. In particular, such a wager-based gaming system can include a remote host that is in communication with some or all of the

processor-based gaming machines, with the remote host being adapted to download wheel spin times, values, tables, sound files, and/or other wheel parameters or any combination thereof to the networked gaming machines. Where gaming machines are to be networked in such a wager-based gaming system, various gaming machine embodiments can also include a network interface (not shown) coupling the gaming machine to the system and its various remotely located networked components. Such a network interface would preferably facilitate the downloading of the various items listed above to the networked gaming machines. Such items can be stored, for example, at database **70**, and then be made available to various gaming machines within the gaming system.

**[0082]** Various wheel spin parameter determinations and/or wheel sound generations can be done by a network component, such as at the remote host, or within an individual gaming machine. Accordingly, a wheel spin timer or other specialized processor and/or wheel sound generator may be located at the remote host, or elsewhere within the gaming system and outside of an individual gaming machine. Such a remotely located wheel spin processor and/or wheel sound generator could be beneficial to an overall system, particularly where such a system might have gaming machines that are not equipped with specialized wheel spin processors and/or wheel sound generators themselves. For example, where it is desirable for a system gaming machine to provide a realistic wheel-type game having virtual wheels, then the system can provide the various functions of a wheel spin processor and/or wheel sound generator where the system gaming machine does not have one or both of these components and is not otherwise equipped to provide such functions itself.

**[0083]** In some embodiments, wheel spin timers or processors and/or wheel sound generators can be located both within individual gaming machines, as detailed above, and also on one or more system components, such as at a remote host. Whether a wheel spin processor and/or wheel sound generator is located on a system component or within a gaming machine, it is preferable that such a wheel spin processor and/or wheel sound generator be able to facilitate the provision of realistic wheels on an associated display, particularly through the use of one or more timing and/or recorded sound files, which files can be stored on an associated internal gaming machine memory **146**, **148** and/or at a network location, such as at system database **70**.

#### Wheel Presentations for Wheel Based Gaming Machines

**[0084]** As noted above, a suitable multi-layer display device can be used advantageously in a variety of ways to provide a more realistic—and even three-dimensional—presentation of one or more spinning gaming wheels thereupon within the context of a processor-based gaming machine. Such gaming wheels might be, for example, a roulette wheel or equivalent and/or any video or graphical version of the popular Wheel of Fortune® wheel manufactured by IGT.

**[0085]** In a roulette example, a center of the distance between the layered displays may be set as the center of the roulette wheel. Numbers on the perimeter of the roulette wheel may then move in and out between the front display and back display. This can create a 3-D effect where the numbers on the roulette wheel actually approach and retreat from a person standing in front a game machine.

**[0086]** In various embodiments, a Wheel of Fortune® game can use a gaming wheel that is displayed between the layered